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IN THE
Supreme Court of the United States

HALO ELECTRONICS, INC.,
Petitioner,
v.
PULSE ELECTRONICS, INC., *et al.*,
Respondents.

STRYKER CORPORATION, *et al.*,
Petitioners,
v.
ZIMMER, INC., *et al.*,
Respondents.

On Writs of Certiorari to the United States Court of Appeals for the Federal Circuit

BRIEF OF *AMICUS CURIAE* MARVELL SEMICONDUCTOR, INC. IN SUPPORT OF RESPONDENTS

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INTEREST OF AMICUS CURIAE[1]

Founded in Silicon Valley more than twenty years ago, Marvell Semiconductor, Inc. ("Marvell") is a recognized top innovator, employing thousands of people with heavy investment in semiconductor research and development reflected in tangible semiconductor chips, and it has developed a large patent portfolio. *See* Thomson Reuters, *Top 100 Global Innovators: Marvell*, *available at* http://top100innovators.stateofinnovation.thomsonreuters.com/content/marvell. In litigation brought by Carnegie Mellon University ("CMU") against Marvell, the Federal Circuit ruled that Marvell did not willfully infringe CMU's patents, and reversed the district court's award of $287 million in enhanced damages. *See CMU v. Marvell Tech. Group, Ltd.*, 807 F.3d 1283, 1292, 1301-02 (Fed. Cir. 2015). The *en banc* Federal Circuit has held that decision in abeyance pending this Court's resolution of these consolidated cases. *See CMU v. Marvell Tech. Group, Ltd.*, 805 F.3d 1382, 1382-83 (Fed. Cir. 2015). The development of the law regarding enhanced damages has real and enormous consequences for operating companies like Marvell.

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[1] Pursuant to this Court's Rule 37.6, Marvell states that no counsel for any party authored this brief in whole or in part. No entity or person, aside from Marvell and its counsel, made any monetary contribution toward the preparation or submission of this brief. Pursuant to this Court's Rule 37.3(a), Marvell notes that all parties in the consolidated cases have consented to the filing of this brief; their consents have been filed with the Clerk of this Court.

SUMMARY OF ARGUMENT

The objective test for willfulness, with *de novo* review, is necessary to promote the public interest in innovation that is at the heart of the patent laws.

I. Discarding the objective reasonableness test would cause an explosion in enhanced damages. Prior to *Seagate*, district courts found that infringers acted willfully in the *majority* of cases and usually awarded enhanced damages in those cases. Notwithstanding the assertions of Petitioners and the United States that their undefined, multi-factor tests can limit enhanced damages to only the egregious cases, experience shows that their tests will fail to do so. The practical reality is that only an objective test can ensure that enhanced damages do not become the norm once again, a result that would substantially harm the public interest in several ways.

First, Petitioners' approach would harm the public interest in challenging potentially invalid patent claims. The proliferation of invalid patent claims has a harmful effect on innovation by making it seem, incorrectly, as though certain features are off limits for competition. There is a public interest in challenging invalid patent claims. Indeed, even when the challenge fails, it often benefits the public by defining the scope of a valid patent. Accordingly, there is no legitimate basis for punishing companies with enhanced damages where they have a strong (though unsuccessful) claim for invalidity.

Second, Petitioners' approach would discourage reasonable attempts to design around patents. Petitioners treat copying and design-around as a basis for enhanced damages. But attempts to design around patents are a critical part of the process of innovation.

They also advance the public notice function of patents.

Third, Petitioners' approach would force companies to spend an enormous amount of money to investigate every possible claim against them. Moreover, even these exhaustive investigations would be inadequate to protect against enhanced damages. The practical reality of patent litigation is that defenses depend on which claims are asserted, how they are construed, how experts interpret the prior art, and many other circumstances that are inherently unpredictable prior to litigation. Thus, there is no legitimate basis for punishing a company for being unable to figure out its best possible defense before litigation commences.

Fourth, Petitioners' approach would improperly punish companies for their litigation strategy, and in particular for exercising attorney-client privilege. While the America Invents Act ("AIA") does not allow the failure to obtain advice of counsel to be used as proof of willfulness, *see* 35 U.S.C. § 298, Petitioners' approach puts the burden on defendants to show that they knew of a defense prior to suit. And there will often be no way of doing so without waiving attorney-client privilege, precisely the situation that Congress intended to prevent.

II. *De novo* review is required as a legal matter and provides a crucial check on district courts. In particular, the Federal Circuit's repeat experience with patent cases positions that court well to evaluate whether a party was objectively willful. The *de novo* standard of review also protects against the inconsistent and excessive use of enhanced damages by district courts. In contrast, the abuse-of-discretion standard advocated by Petitioners and the United

States would exacerbate the harm to innovation that comes from their removal of an objective test.

III. The *CMU v. Marvell* case demonstrates what would likely happen if this Court discards the objective reasonableness test for enhanced damages. The district court there awarded $287 million in enhanced damages to CMU even though it had recognized at summary judgment that the validity of CMU's patented method was a "close case," and even though Marvell prevailed on summary judgment of non-infringement on the majority of the asserted claims. The only reason Marvell did not face a $287 million punishment for being unable to predict the outcome of a close case on invalidity and a jury verdict on infringement is that the Federal Circuit reversed on the issue of objective willfulness. That check on jury and district court enhanced damages awards should remain in place.

ARGUMENT

I. THE OBJECTIVE REASONABLENESS TEST IS NECESSARY GIVEN THE PRACTICAL REALITIES OF PATENT LITIGATION AND THE PURPOSES OF PATENT LAW IN PROMOTING INNOVATION

If the objective reasonableness test is discarded, infringers will routinely face enhanced damages. Petitioners seem to recognize that enhanced damages should not be awarded in most or all cases. *See* Halo Pet'r Br. at 28-29; Stryker Pet'r Br. at 35. The United States goes even further and insists that enhanced damages should be limited to the "most egregious" cases. U.S. Br. at 9. But the amorphous, multi-factor, discretionary tests they put forward will do nothing in

practice to restrain enhanced damages awards to egregious cases.

This is not mere speculation. Before *In re Seagate*, 497 F.3d 1360 (Fed. Cir. 2007), adopted the test of objective willfulness subject to *de novo* review, willfulness was found in the *majority* of cases of infringement. *See* Kimberly A. Moore, *Judges, Juries, and Patent Cases — an Empirical Peek Inside the Black Box*, 11 FED. CIR. BAR J. 209, 240 (2002) (1983-99 study concluding that juries found willfulness in 71% of cases and judges found willfulness in 53% of cases). And because review was only for abuse of discretion, these findings were affirmed 85% of the time. *Id.* at 248. There is no conceivable theory under which the majority of infringers deserve enhanced damages, or that such routine enhancement serves the public interest rather than acting as a windfall for patentees, many of them non-practicing entities. In particular, the objective reasonableness test adopted by the Federal Circuit serves the public interest in challenging invalid patent claims, promoting innovation, and protecting attorney-client privilege.

A. The Objective Reasonableness Test Is Necessary To Encourage Companies To Challenge Invalid Patent Claims

The core constitutional purpose of the United States' intellectual property law is "[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries." U.S. Const. art. I, § 8, cl. 8. That goal of promoting innovation is stifled by the proliferation of invalid patent claims.

It is well established that the exponential growth in patents has been accompanied by a similar growth in patents that actually have invalid claims. For instance, in inter parties review proceedings under the AIA, 88% of patents reviewed by Patent Trial and Appeal Board from 2012-2015 had at least one claim found invalid. *See* Amy Simpson & Hwa Lee, *PTAB Kill Rates: How IPRs are Affecting Patents*, LAW360 (Sept. 15, 2015), http://www.law360.com/articles/699860/ptab-kill-rates-how-iprs-are-affecting-patents.

This Court has long recognized that it is in the public interest for invalid patent claims to be challenged. The public "has a paramount interest in seeing that patent monopolies are kept within their legitimate scope." *Medtronic, Inc. v. Mirowski Family Ventures*, 134 S. Ct. 843, 851-52 (2014) (internal citations and quotation marks omitted). Over-patenting can "tie up" "the basic tools of scientific and technological work," presenting a significant danger of "inhibit[ing] future innovation premised upon them." *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013) (internal citations and quotation marks omitted). Such restraints are "at odds with the very point of patents, which exist to promote creation." *Id.*

Successful invalidity challenges prevent inappropriate monopolies and increase the body of knowledge freely available to all. "If a high enough bar is not set" for determining what constitutes true innovation, "patent examiners and courts could be flooded with claims that would put a chill on creative endeavor and dynamic change." *Bilski v. Kappos*, 561 U.S. 593, 608 (2010). "Allowing even a single company to restrict its use of an expired or invalid patent deprive[s] the consuming public of the advantage to be derived from

free exploitation of the discovery." *Kimble v. Marvel Ent., LLC.*, 135 S. Ct. 2401, 2407 (2015) (internal formatting omitted).

If enhanced damages are available even where the defendant presents a reasonable invalidity defense at trial, then that would chill companies from challenging patents. The potential risk of losing not just the damages proven by the plaintiffs, but as much as three times that amount, will be a substantial disincentive to defendants to litigate patent claims rather than succumbing to unwarranted settlements. And it does not suffice to say that district courts can exercise discretion: the question of subjective reasonableness is too ambiguous and arbitrary to provide any assurance to defendants.

Moreover, the public interest in challenging invalid patent claims exists regardless of *when* a defendant company formulates its invalidity theory. The current objective reasonableness test for willful infringement facilitates such challenges—it encourages defendants to formulate strong invalidity challenges even after litigation commences. If successful, more knowledge is open to the public; if the challenge is strong but ultimately unsuccessful, that too provides further knowledge to the public about the scope of the patented claims, while also preventing the defendant from paying up to treble the actual damages. And, of course, the patentee still receives the damages to which it is entitled—the only thing it does not receive is a windfall in the form of a multiple of those damages.

B. Petitioners' Suggested Focus On Copying And Subjective Reasonableness Will Discourage Innovation

Petitioners and the United States focus on "copying" as a key basis for imposing enhanced damages. But this focus is misplaced: designing around is crucial to innovation, and there is no basis for imposing enhanced damages when a company is mistaken about the success of its design-around.

The public interest favors attempts to design around (and thus not infringe) valid claims. Innovation is iterative; engineers who work towards and create alternatives to patent-protected solutions are themselves expanding the sum of human knowledge. When innovators start from a patented solution, in an attempt to understand but then diverge from it, they are furthering the purposes of the Patent Act, not inhibiting it. After all, "[d]esigning around patents is, in fact, one of the ways in which the patent system works to the advantage of the public in promoting progress in the useful arts, its constitutional purpose." *Slimfold Mfg. Co. v. Kinkead Indus., Inc.*, 932 F.2d 1453, 1457 (Fed. Cir. 1991); *see also TiVo Inc. v. Echostar Corp.*, 646 F.3d 869, 883 (Fed. Cir. 2011) ("[D]esign-around efforts should always be encouraged as a path to spur further innovation.").

So-called "copying" can be a legitimate part of the design-around process. "Allowing competitors to copy will have salutary effects in many instances." *TrafFix Devices, Inc. v. Mktg. Displays, Inc.*, 532 U.S. 23, 29 (2001). For example, "[r]everse engineering of chemical and mechanical articles in the public domain often leads to significant advances in technology." *Id.* (quoting *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U. S. 141, 160 (1989)). A company may start

by "copying" a patent, but in the end achieve its own solution based on non-protected components, thereby avoiding infringement of the novel components of the asserted patent. The Federal Circuit has explained that copying may well indicate fair competition—copying is only unlawful if there is "a nexus between the copying and the novel aspects of the claimed invention." *Wm. Wrigley Jr. Co. v. Cadbury Adams USA LLC*, 683 F.3d 1356, 1364 (Fed. Cir. 2012).

Petitioners' approach of focusing on "copying" as a basis for enhanced damages would ignore these important policies and thus frustrate the incentives for innovation in the Patent Act. For purposes of assessing willfulness, there is a great distance between, on the one hand, a defendant that can muster no serious invalidity challenge and made no attempt to differentiate its product from a patented solution, and on the other, a company that attempted to use non-protected building blocks and its own ingenuity in developing a distinct solution. Even if the latter solution may ultimately be determined by a lay jury to have fallen within the scope of the original patented claims, such attempts to design around should be encouraged.

To be sure, a company that does nothing more than copy a patented feature, with no reasonable defense of invalidity or non-infringement, should be subject to the potential for enhanced damages. But that company will already be subject to enhanced damages under an objective test since a mere copy will have no reasonable defense of non-infringement. The proper way of ensuring that true copiers of a patented feature are punished, but companies that make a real effort to design around are not, is to look objectively at the technical merits of the defendant's actions to

determine whether there is a reasonable defense of invalidity or non-infringement, even if that look takes place in litigation.

C. An Objective Analysis Of Asserted Defenses Is Necessary Because Of The Expense And Difficulty Of Predicting Patent Litigation

Petitioners and the United States assign great import to the timing of defendants' formulation of their invalidity and non-infringement defenses. They insist that if a defense was not formulated until after litigation commenced, it should not preclude enhancement of damages. This focus on timing, however, does not accord with the practice of patent litigation. It is not realistic for a company, prior to litigation, to develop every possible defense for every possible patent claim that can be asserted against it.

1. In the era of complex, multi-featured computing, high-tech products contain thousands of patented features. For example, as of 2012, the United States Patent and Trademark Office ("PTO") had issued more than 250,000 smartphone-related patents, constituting 16% of all active U.S. patents. *See* Daniel O'Connor, *One In Six Active U.S. Patents Pertain To The Smartphone*, DISCO (Oct. 17, 2012), http://www.project-disco.org/intellectual-property/one-in-six-active-u-s-patents-pertain-to-the-smartphone.

Companies that produce these high-tech products with thousands of features cannot proactively assess every patent that might conceivably apply to their products. The time and expense of such an undertaking would be prohibitive. Obtaining even a basic infringement and invalidity opinion typically costs $15,000 per patent, *see* AMERICAN INTELLECTUAL

PROPERTY LAW ASSOCIATION, REPORT OF THE ECONOMIC SURVEY (2013) at 27, and can exceed $50,000 or even $100,000 as claim complexity and potential exposure increases. *See, e.g.*, Kimberly A. Moore, *Empirical Statistics on Willful Patent Infringement*, 14 FED. CIR. BAR J. 227, 228 n.5 (2004) (collecting sources); A PATENT SYSTEM FOR THE 21ST CENTURY: COMMITTEE ON INTELLECTUAL PROPERTY RIGHTS IN THE KNOWLEDGE-BASED ECONOMY 119 (Steven A. Merrill et al. eds., 2004) (collecting sources). Investigating every patent with potential application to their products would require companies to divert enormous sums away from innovation and towards investigations.

Nor is it economically feasible for high-tech companies to investigate every patent of which they are specifically notified. It is standard practice for patent owners to send blanket licensing letters to every significant player in the industry. Investigating even this smaller set of patents would be prohibitively expensive.

When reviewing these patent licensing offers, the lines are often fuzzy between friendly offers, adversarial letters carefully worded to provide notice but still avoid declaratory judgment jurisdiction, and outright demands. Some letters are innocuous; others are precursors to infringement contentions. And a company cannot treat every such letter as a requirement to conduct a detailed investigation to predict the outcome of possible litigation.

It would be an enormous waste of resources for technology companies to conduct full investigations into every potentially applicable patent, and then be locked into the results of those investigations as the full extent of "objectively" reasonable defenses they

could assert in future litigation. The Federal Circuit's objective reasonableness test prevents such a needlessly expensive result: it allows companies to make reasoned real-time business judgments not to divert resources away from innovation and to hypothetical litigation, while still allowing a company once sued to fight with the full arsenal of defenses.

2. Not only would full investigations of every patent be prohibitively costly, they would still be woefully inadequate in actually allowing companies to determine all of their invalidity and non-infringement defenses, let alone predict their success.

First, a patent may contain dozens of different claims. Claims differ widely in the scope of their coverage. Some claims may be broad and therefore subject to a strong defense of invalidity. Some claims may be narrow and therefore subject to a strong defense of non-infringement. The defenses of non-infringement and invalidity often are interrelated, and interrelated across claims. It is therefore implausible and illogical to impose the burden on the company to determine all of the non-infringement and invalidity defenses for all of the potential permutations of claim assertions, all prior to litigation, where the identity of claims for trial becomes known.

Second, pre-suit investigations are necessarily speculative because claim construction is an issue the court will decide during the litigation. The first significant step in any patent litigation is to define what, exactly, the patent means. *See Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 384-90 (1996). This patent claim construction process, litigated through the adversarial process and decided as a matter of law by the judge, has a dramatic impact on whether specific non-infringement and invalidity

arguments remain viable. Pragmatically, although patents are required to be "precise enough to afford clear notice of what is claimed, thereby apprising the public of what is still open to them," *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014), that precision is often not actually obtained until after claim construction in active litigation. *See, e.g.*, James R. Barney and Charles T. Collins-Chase, *An Empirical Analysis of District Court Claim Construction, January to December 2009*, 2011 STAN. TECH. L. REV. 2, 3, *available at* http://stlr. stanford.edu/pdf/barney-collins-chase-claim–construc tion.pdf ("[I]t is sometimes necessary, during claim construction, to substitute new language for the actual language that was chosen by the patentee and allowed by the PTO.").

Neither patent owners nor defendant companies can truly understand a patent's scope and effect until after claim construction has occurred. Claims construed broadly are more open to invalidity challenges; claims construed narrowly are more open to non-infringement contentions. Claim construction often involves a careful threading of a needle: "A patent may not, like a 'nose of wax,' be twisted one way to avoid anticipation and another to find infringement." *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343, 1351 (Fed. Cir. 2001) (internal citations omitted). Thus, even for a company that expends the resources to conduct a pre-suit analysis of a patent, the company may have based its analysis on an incomplete or incorrect understanding of the patented claims. When that happens, the opinion itself—and the non-infringement and invalidity defenses it contemplates—can become meaningless because it lacks the benefit of a court's legal interpretation as to the patent's scope.

Third, there are many additional, unpredictable elements of patent litigation. There are questions regarding what prior art would have been known to people in the art; whether people in the art would have thought to combine different prior art; whether claim language is too indefinite; and whether the particular feature in the accused product falls within the claim language or construction. Many of these questions are factual ones, often leading to battles of the experts decided by juries. There is no practical way of guessing how juries will decide any, let alone all, of these questions.

Petitioners' approach does not account for these variables in evaluating the reasonableness of a companies' conduct. Petitioners' jettisoning of objective recklessness would force an absurd result: to avoid enhanced damages, companies would be required to spend significant resources guessing as to which patents it might be sued on, which claims of those patents will be asserted, how those claims will be construed by a judge, and what potential defenses it has based on those constructions. Only successful guesses would suffice to preclude willfulness and enhancement—no matter how strong the defenses a company might have after it knows which claims will be asserted and how they will be construed.

The practical reality is that, in many if not most cases, a company cannot determine prior to litigation, with any degree of certainty, which defenses will be good ones. There is no legitimate reason to punish companies for this uncertainty with enhanced damages. And there is also no reason to force companies to spend enormous sums on changing their products to avoid any possibility of infringement, on taking potentially extortionate licenses, or on

commissioning legal opinions so thorough that they resemble litigation itself. The cost of being wrong is already significant—the potential for damages measured by lost profits or reasonable royalties, and possibly an injunction. *See* 35 U.S.C. §§ 283, 284, 289. The addition of enhanced damages in most patent cases does nothing to serve the legitimate interests of the patent system.

D. Petitioners' Suggested Focus On Whether Defendants Actually Contemplated Objectively Reasonable Defenses Prior To Litigation Creates Numerous Problems, Including For Attorney-Client Privilege

Requiring subjective evidence of the timing of a defendant's investigation of a patent further frustrates public policy by impinging upon attorney-client relationships. As *Seagate* recognized, patent defendants typically investigate potential infringement and formulate their defenses through consultations with counsel. 497 F.3d at 1374. Even though the Federal Circuit has held that—in part due to privilege concerns—no adverse inference can be drawn from a defendant's "failure to obtain or produce an exculpatory opinion of counsel," *Knorr-Bremse Systeme Fuer Nutzfahrzeuge GmbH v. Dana Corp.*, 383 F.3d 1337, 1341 (Fed. Cir. 2004) (*en banc*), the reality has been that a jury could still hear evidence and argument on the lack of an opinion of counsel and use that evidence to support subjective willfulness. To be sure, the AIA now states that "[t]he failure of an infringer to obtain the advice of counsel with respect to any allegedly infringed patent, or the failure of the infringer to present such advice to the court or jury, may not be used to prove that the accused infringer

willfully infringed the patent." 35 U.S.C. § 298. However, under Petitioners' approach, this provision still fails to protect attorney-client privilege because Petitioners would hold willfulness not necessary for enhancement, and thus the lack of an opinion of counsel could still be used for enhancement, even if not for willfulness.[2]

Moreover, if the question is whether the defendant knew about a defense prior to suit and believed that defense would be successful, there is almost no way for a defendant to make that showing without providing an opinion of counsel and thereby waiving attorney-client privilege. Thus, imposing a requirement that a defense must have been contemplated prior to suit effectively requires defendants to waive privilege. The objective reasonableness inquiry exists, in part, to prevent Defendants from being put to such a Hobson's choice of either disclosing privileged pre-suit communications with counsel, or conceding the absence of an objectively reasonable defense.

The focus on the timing of when the defendant was aware of the defense also leads to other problems. For example, the defendant prior to suit might have thought it had a good defense based on certain prior art that made the patent claim obvious. During suit, however, based on further investigation or a particular claim construction, the defendant might determine that there is even better prior art to use in its defense. Does the defendant have to raise the weaker defense because only it will count for purposes of rebutting

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[2] This argument also shows precisely why Congress must have intended willfulness to be a requirement for enhancement; otherwise, its protection for attorney-client privilege could be evaded by having it apply to some other basis for enhancement.

willfulness? For another example, imagine that substantial damages accrue during the suit. Should it matter precisely the date that the defendant came up with its reasonable but ultimately unsuccessful defense? And should any damages accruing after that date not count towards enhanced damages? And is there any way of getting at this number without the defendant disclosing its entire litigation strategy to the court? These examples are just a few of the many problems that arise when litigation strategy decisions become a tool for enhancing damages.

II. *DE NOVO* REVIEW IS NECESSARY TO ENSURE THE FAIR AND CONSISTENT APPLICATION OF PATENT LAW AND TO PROTECT AGAINST OUTSIZED DAMAGE AWARDS

The Federal Circuit's determination that objective reasonableness is a question of law that should be reviewed *de novo* is correct under this Court's precedents. This Court has recognized that *de novo* review applies to mixed questions of fact and of law. *See, e.g., Harper & Row Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 560 (1985) (copyright fair use defense); *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015) (preserving *de novo* review for review of intrinsic claim construction evidence).[3] Objective willfulness is such a question here, *Bard Peripheral Vascular, Inc. v. W.L. Gore & Assocs., Inc.*, 682 F.3d 1003, 1005 (Fed. Cir. 2012), as courts have found in other contexts, *e.g.*, *Alvarez v. IBP, Inc.*, 339

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[3] There may be underlying questions of fact relevant to the objective reasonableness analysis, *cf. Teva Pharm.*, 135 S. Ct. at 836-37, but the ultimate determination of objective reasonableness is still a legal one.

F.3d 894, 908 (9th Cir. 2003) (applying *de novo* review to willful violations of Fair Labor Standards Act), *aff'd*, 546 U.S. 21 (2005); *Davila v. Menendez*, 717 F.3d 1179, 1184 (11th Cir. 2013) (applying *de novo* review to willful violations of minimum wage laws).

As a practical matter, *de novo* review is appropriate given that the Federal Circuit, with its exclusive jurisdiction over patent appeals, can provide expertise and consistency in enhanced damages judgments.

First, the Federal Circuit's expertise makes it a better adjudicator than an array of district courts of whether enhanced damages are appropriate. As discussed above, the issues regarding claim construction, prior art, and legitimacy of design-around often involve highly technical questions of patent law and engineering. To be sure, district courts and juries do decide these questions in the first instance. But Congress created the Federal Circuit precisely to allow these technical questions to be decided by judges who can evaluate them with a greater level of expertise. Simply put, since the Federal Circuit decides *de novo* claim construction, validity, and substantial evidence for infringement, it also should decide whether defenses based on those legal determinations were strong enough to make enhanced damages unwarranted.

Second, the Federal Circuit's *de novo* review ensures a degree of consistency in the awards of enhanced damages. In particular, *de novo* review protects against inconsistent or unfair findings of willfulness that may favor local plaintiffs or plaintiffs that engage in forum shopping. Patent plaintiffs often choose their hometown as the venue for the litigation. And empirical studies show that in patent cases, there is a marked disadvantage for out-of-state or foreign

defendants. *See* Kimberly A. Moore, *Xenophobia in American Courts*, 97 NW. U. L. REV. 1497, 1519 (2003) ("In-state plaintiffs succeed against out-of-state defendants in 72% of the jury trials. Out-of-state plaintiffs who sue in-state defendants prevail in only 47% of the jury trials."). Forum shopping makes clear the danger of inconsistency in district courts' treatment of patent cases, as well as the need for the Federal Circuit to provide some consistency in results, which cannot be achieved if the Federal Circuit is limited to abuse-of-discretion review.

Third, relying on district courts with only abuse-of-discretion review will result in outsized damage awards. As discussed above, prior to *Seagate*, district courts found willfulness as a basis for enhancement in the majority of cases. *See supra* at 5. Even after *Seagate*, some district courts have attempted to award enhanced damages more broadly than allowed under the Federal Circuit's test for willfulness. *See* Justin P Huddleson, Note, *Objectively Reckless: A Semi-Empirical Evaluation of In re Seagate*, 15 B.U. J. SCI. & TECH. L. 102, 120 (2009) ("First, the Federal Circuit has taken a particularly critical view of willfulness and is intent on enforcing it. Second, and perhaps not surprisingly, not every district court follows this view."). Thus, *de novo* review is a crucial backstop to excessive awards.

Finally, it is important to contrast the discretion this Court held appropriate for attorney's fees with the discretion Petitioners seek over enhanced damages. In *Octane Fitness, LLC v. ICON Health & Fitness*, 134 S. Ct. 1749, 1756 (2014), and *Highmark Inc. v. Allcare Health Management System, Inc.*, 134 S. Ct. 1744, 1748 (2014), this Court held that district courts should have discretion to determine the exceptional cases for

which attorney's fees should be awarded. However, district courts in many areas of law exercise discretion to award attorney's fees. Discretion to treble damages based on unfettered judgment, by contrast, is not a typical function of the district court. And such discretion is inconsistent with this Court's recognition that "an award of punitive damages [must be] based upon an 'application of law, rather than a decisionmaker's caprice,'" which requires "appellate courts to conduct *de novo* review." *State Farm Mut. Automobile Ins. Co. v. Campbell*, 538 U.S. 408, 418 (2003) (quoting *Cooper Indus., Inc. v. Leatherman Tool Group, Inc.*, 532 U.S. 424, 436 (2001)). Moreover, shifting attorney's fees is a tool to rein in frivolous patent litigation, which can pose a threat to the public interest. In contrast, and as detailed above, the public interest supports any objectively reasonable challenge to patent claims. Thus, *Octane* and *Highmark* are not properly read to dictate any particular outcome here.

III. *CMU v. MARVELL* PROVIDES A PERFECT EXAMPLE OF THE NEED FOR AN OBJECTIVE STANDARD FOR ENHANCED DAMAGES

The litigation between CMU and Marvell demonstrates precisely why an objective test—reviewed *de novo* by the Federal Circuit—is necessary to ensure that patent holders do not receive windfalls at the expense of the public interest. In *CMU v. Marvell*, the district court awarded CMU a $287 million enhancement of damages, and the only check preventing that enhancement was the Federal Circuit's reversal based on the holding that Marvell had objectively reasonable defenses. The case therefore provides a window into what would happen if, as Petitioners advocate, district courts are given

free rein to decide damages enhancement. As shown below, what would happen is that companies like Marvell, acting in good faith to innovate in a legal climate with thousands of patents for a single product, will suffer unjust enhancements of damages with essentially no recourse.

1. In 2000, Marvell unveiled what would become its flagship product: a system-on-a-chip platform for the data storage industry.[4] Around the same time, while canvassing publicly available research on how to improve chips' ability to read densely packed data in hard-disk drives, a Marvell engineer read a paper by recent Carnegie Mellon University graduate Dr. Aleksandar Kavcic. *CMU v. Marvell Tech. Group, Ltd.*, 986 F. Supp. 2d 574, 592 (2013). Marvell determined that Kavcic's algorithmic method presented a theoretical solution to the problem of reducing media noise, *id.*, but that Kavcic's method was too complicated to be feasibly implemented in an actual silicon chip. 986 F. Supp. 2d at 628; *CMU v. Marvell Tech. Group, Ltd.*, 2014 WL 183212, at *4 (W.D. Pa. Jan. 14, 2014).

Marvell thereafter worked around Kavcic's method to develop a new, commercially viable solution. In 2002, Marvell filed a provisional patent application for Marvell's solution, expressly noting Kavcic's patent as a prior art reference. "Detection in the Presence of Media Noise," USPTO Provisional Patent Application No. 60/345,725 (Jan. 3, 2002). The PTO in 2005 awarded Marvell the patent, which cites Kavcic's 2001 and 2002 patents on the first page. *See* Detection in

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[4] Press Release, Introduction of Industry's First System-On-Chip, (Sept. 20, 2000), http://www.marvell.com/company/news/pressDetail.do?releaseID=197.

the Presence of Media Noise, U.S. Patent No. 6,931,585 (Aug. 16, 2005).

In 2003, CMU wrote a "friendly letter" attempting to solicit licensing interest to Marvell and nine other companies. *CMU*, 2014 WL 183212, at *8. Only two wrote back; none took a license. *Id.* CMU did not further suggest, formally investigate, or pursue any claim of infringement over the next six years, suing Marvell only in March 2009. *Id.* at *8-12.

During the ensuing litigation, Marvell argued that its independently patented solution did not infringe CMU's asserted claims. The district court agreed in substantial part, granting Marvell's motion for summary judgment of non-infringement on the majority of CMU's asserted claims. *CMU v. Marvell Tech. Group, Ltd.*, 888 F. Supp. 2d 637 (W.D. Pa. 2012). As for the remaining asserted claims, Marvell argued that CMU's asserted patent claims were invalid as anticipated by a 1995 patent issued to Dr. Glen Worstell. On summary judgment, the court explained that invalidity "was a close call," *CMU v. Marvell Tech. Group, Ltd.*, 2011 WL 4527353, at *1 (W.D. Pa. Sept. 28, 2011), but rejected Marvell's argument nonetheless based in part on the court's claim construction of the term "function." *Id.* at *8-10.

The case proceeded to trial, where the judge instructed the jury that, in assessing willfulness, "you may consider as one factor the lack of evidence that Marvell obtained a competent legal opinion." *CMU v. Marvell Tech. Group, Ltd.*, 2013 WL 4511293, at *5 (W.D. Pa. Aug. 23, 2013).[5] CMU then repeatedly

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[5] The district court held that 35 U.S.C. § 298 was inapplicable because it "only applies to any law suit commenced on or after January 14, 2013." *CMU*, 2013 WL 4511293, at *5 n.13.

referenced the lack of an opinion in closing arguments, asserting that, "when there's a possibility that you are infringing, a possibility that you are infringing on a patented invention, you're supposed to get an opinion from legal counsel to see if they're okay. You never saw such an opinion in this case." *Id.* at *6. Having heard these arguments, the jury determined that Marvell willfully infringed. *CMU*, 986 F. Supp. 2d at 623, 626. The jury further awarded CMU the maximum damages amount requested by CMU, $1.169 billion, which the district court upheld. *Id.* at 637, *vacated in part*, 807 F.3d at 1311.[6]

The district court, rather than providing any check on the jury's willfulness finding, found that Marvell's supposedly willful conduct supported enhanced damages. *Id.* at 660. The court asserted that evaluating the reasonableness of defenses was the jury's prerogative, and credited the jury's verdict. *Id.* at 626, 630-31. The court further explained that, because Marvell had not presented any proof that it subjectively envisioned its invalidity defense prior to suit, the defense could not be objectively reasonable. *See id.* at 630-31. On the issue of subjective willfulness, the court upheld the jury finding because Marvell had engaged in supposed copying. *Id.* at 632-33. In deciding the amount of the enhancement, the court subtracted the pre-suit damages from the post-

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[6] This award was orders of magnitude greater than the value of the patent as established by any historical licensing. IBM, Seagate, and 3M licensed the patents by paying a $250,000 flat fee to license any CMU patent conceived during their relevant annual memberships in a CMU research center. 986 F. Supp. 2d 574 at 588-89. CMU offered to license one of the patents to Intel for a flat fee of $200,000; Intel declined. *Id.* at 590. And CMU estimated that it might license the relevant patents to Marvell for at most a $2 million annual fee. *Id.* at 654.

suit damages and multiplied by two. *CMU v. Marvell Tech. Group, Ltd.*, 2014 WL 1320154, at *25 (W.D. Pa. Mar. 31, 2014).

The Federal Circuit reversed the $287 million enhanced damages award, holding that "there was enough uncertainty about what Worstell discloses and what CMU's claims required that we cannot say that the defenses were objectively unreasonable." *CMU v. Marvell Tech. Group, Ltd.*, 807 F.3d 1283, 1301 (Fed. Cir. 2015). The Federal Circuit held that the district court erred by treating reasonableness as a fact question for the jury; by "rel[ying] on the proposition that it mattered whether Marvell developed its invalidity defense when undertaking its infringing activity"; and by "confin[ing] its consideration of Marvell's defenses to those raised at trial, excluding arguments presented earlier in the litigation, such as at the summary-judgment stage." *Id.*

2. This case illustrates a key failing in Petitioners' approach: they do not identify precisely what makes an infringer deserving of enhanced damages, or what conduct courts should try to discourage through enhanced damages. The result is that they propose a test whereby Marvell could have been subject to enhanced damages even though there was no legitimate reason to punish Marvell. Marvell's response to a "friendly" licensing letter was no different than any other industry peer. And its response to its own separately acquired knowledge of Kavcic's patents was to disclose publicly Kavcic's influence, while engineering a separate design, distinguishing Kavcic's method, and obtaining its own patents. When unexpectedly confronted with litigation six years after receiving CMU's "friendly" letter, Marvell presented

strong technical defenses, including a non-infringement defense that succeeded as to the majority of claims, as well as a "close call" invalidity defense that the Federal Circuit deemed objectively reasonable.

There is no theory of enhancement whereby Marvell's industry-standard behavior and strong technical defenses justify $287 million in enhanced damages. And yet, under Petitioners' approach, there could essentially be no recourse for a company like Marvell if such an outsized enhanced damages award were imposed. The district court could consider any factors to support enhancement, and its decision would be reviewed only for abuse of discretion (with no sense of how a district court can abuse its discretion given that the factors and their weighing are entirely unguided). Petitioners' standardless approach thereby fails to ensure that the punishment of enhanced damages is reasonable and falls only on those actually deserving of it.

As illustrated by *CMU v. Marvell*, Petitioners' approach also fails by punishing conduct that should be encouraged or, at a minimum, protected as a matter of law. In particular, a finding of willfulness would have punished Marvell for (1) challenging patent claims despite showing non-infringement as to the majority of asserted claims and a strong (though unsuccessful) invalidity defense; (2) attempting to design around a patent it acknowledged as prior art in its successful patent application because this was seen as a form of "copying"; (3) being unable to predict the district court's post-litigation claim construction of disputed terms; and (4) asserting attorney-client privilege. As discussed above, these are not issues unique to the *CMU v. Marvell* litigation. Rather, these problems are inherent in Petitioners' approach and

will have wide-ranging, negative consequences for the patent system and the economy as a whole.

CONCLUSION

The judgments of the Federal Circuit should be affirmed.

Respectfully submitted,

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